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TECHNICAL NOTES

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INTERAGENCY STANDARDS FOR FORAGE MANAGEMENT PRACTICES IN OREGON

To aid in uniform interpretation of forage management practices in Oregon, the following standards were developed by an inter-agency committee consisting of representatives of Bureau of Indian Affairs, Bureau of Land Management, Oregon State University, Oregon Game Commission, Forest Service and Soil Conservation Service.

Sound forage management takes into account the growth requirements of both the forage species and the grazing animals. It gives consideration to other resource values, including watershed protection, recreation, timber, and wildlife. It must be practical and economically feasible. The objectives and application of the practice must be understood by the livestock operator, and he must be convinced that, in the long run, he will benefit from its application..

The direct objective of sound forage management on a range is to maintain or improve plant cover and vigor. Maintenance of plant cover and vigor at a high level makes it possible to achieve the broader objectives which include: (1) soil stability, (2) increased stability of water production, (3) sustained production of forage, (4) production of livestock, game and other products of the range, and (5) enhance outdoor recreation.

Forage plants periodically need to grow ungrazed during the growing season to produce the leafy material which manufactures plant food. They need to replenish their supply of stored plant food upon which they rely for early spring growth and for maintenance of a healthy root system. They must be allowed to form seed occasionally or to reproduce vegetatively to perpetuate the stand. Residues left after grazing are required to maintain soil structure and fertility.

Proper use of key forage species is a fundamental principle of sound forage management. Over-utilization of forage can nullify the beneficial effects of any forage management practice.

Major forage management systems used in Oregon include:

Deferred Grazing

Definition: Postponing livestock grazing from the beginning of spring growth until the key forage species have matured, formed seed, or reproduced vegetatively, or for a longer period.

Deferred grazing has been accomplished if:

(a) The range was not grazed by livestock until after seed maturity of key species, followed by grazing during the remainder of the grazing season.

(b) The range was grazed by livestock only in the fall or winter.

(c) The range was deferred from grazing by livestock for the entire year.

Objective: To permit key forage species to complete a full growth cycle uninterrupted by livestock grazing for the purpose of increasing or maintaining vigor of the roots and foliage, and to allow the plants to reproduce themselves, either by developing seed or vegetatively.

Observations: For the purpose of obtaining the above objectives, deferred grazing applies on all upland range sites and grazed woodlands and most bottomland sites which are grazed during the growing season. The principle is applicable irrespective of range conditions although improvement in range is usually more quickly evident when there are enough desirable plants to benefit from the postponement of grazing. Normally it is not practical on bottomland sites such as a saltgrass range, where the major forage species become virtually unusable when allowed to mature without grazing. On all range, mature forage is less palatable and less nutritive than green forage, which can present problems with livestock use unless recognized and taken into account.

Rotation of Deferred Grazing

Definition: Rotating deferred grazing among two or more pastures or grazing units over a period of years in a planned sequence.

Fundamentally, rotation of deferred grazing is represented by a number of different names or variations. These include:

Rotational Deferment	Deferred and Rotation Grazing
Rotated-Deferred Grazing	Deferred-Rotation Grazing
Rotation-Deferred Grazing	Rest-Rotation Grazing

Objectives: (1) To allow the key forage species periodically to complete a full growth cycle uninterrupted by grazing, (2) improve uniformity of utilization in a number of grazing units.

Observations: Rotation of deferred grazing is applicable wherever deferred grazing is beneficial. It may require additional water development to provide adequate stockwater within each pasture.

The range must be fenced or otherwise suitably subdivided into pastures so that deferment does not involve too large a segment of the whole operating unit.

Sufficient forage should be available on the portions of the range not being deferred to carry the livestock through the growing season without overgrazing.

Continuous Grazing

Definition: Grazing a pasture or grazing unit by livestock continuously throughout spring, summer and fall.

Objective: To provide forage for livestock with a minimum expenditure of labor and funds.

Observations: No relief is provided key forage plants except that which occurs between the time they are grazed and when they may be grazed again under the free choice of grazing animals.

Continuous grazing can meet good conservation standards where: (1) safe degree of use is obtained each year so there is no damage to the plants or soil, (2) developments such as water, fences, and salting are entirely adequate, and (3) the stocking is set at a rate that will result in no more than proper use of key forage plants.

Year-long Grazing

Definition: Grazing a pasture or grazing unit continuously for all twelve months of the year.

Objective: Provide forage for livestock with minimum expenditure of labor and funds.

Observations: No relief from grazing is provided the key forage plants except that which occurs between the time they are grazed and when they are grazed again under the free choice of grazing animals.

Year-long grazing is not considered applicable in Oregon.

Winter Grazing

Definition: Grazing a pasture or grazing unit only during the winter months.

Objective: To economize on winter feed costs for livestock and in some instances, to use forage that cannot be used at any other time of the year.

Observations: Winter grazing may be used on ranges that do not normally become covered with prolonged snow and which have been reserved for winter use. It also can be used where, for lack of water or other reasons, livestock cannot or will not utilize the forage at any other time of the year. Where it can be practiced, winter grazing provides a cheaper source of feed than hay, although usually of lower nutritive value. Supplemental feeding of hay or concentrates is usually necessary in conjunction with winter grazing to maintain livestock in satisfactory condition.

Rotation Grazing

Definition: Grazing a pasture or grazing unit two or more times during the same growing season, allowing regrowth between periods of grazing.

Objectives: To promote maximum production of more palatable and nutritious forage, and to improve uniformity of utilization.

Observations: Rotation grazing applies only on highly productive pastures or meadows having sufficient available moisture for continuous summer growth and the kind of plants which can rapidly produce regrowth following grazing. May be irrigated or subirrigated, and native or introduced species.

Two-crop Grazing

Definition: Grazing a stand of crested wheatgrass closely enough during early part of the growing season to remove the buds that produce seedstalks, then removing the livestock while there is still soil moisture enough to provide regrowth, and grazing it a second time after the leafy regrowth has matured.

Objectives: To have regrowth occur primarily in the form of leaves rather than less palatable seedstalks.

Observations: Two-crop grazing is a special system applicable only on well established stands of crested wheatgrass. It may provide a means for obtaining more palatable and more nutritious forage for later season grazing, although soil stability, watershed protection, and optimum production are not necessarily achieved. Two-crop grazing should not be

attempted on stands of native bluebunch wheatgrass since bluebunch wheatgrass cannot withstand early close grazing as does crested wheatgrass.

Rest-Rotation Grazing

Definition: Rotating non-use as well as deferred grazing among two or more pastures or grazing units over a period of years in a planned sequence.

Objective: To rest a range to restore plant vigor and allow production of a seedcrop, to graze subsequently in a manner which will aid in dissemination and planting of seed, and then rest to aid in establishment of seedlings.

Observations: Fundamentally, rest-rotation grazing is a variation of rotation of deferred grazing having periods of deferment (non-use) for one or more complete grazing seasons on portions of the range. There must be adequate stockwater within each pasture during the grazing seasons. Sufficient forage should be available on the grazed portions of the range to carry the livestock throughout the grazing season without causing damage to the soil or key forage plants. This is especially critical on desert or semi-desert ranges which are normally subject to estremes in drought or high intensity rains.